

APPENDIX D-4
Preparation Procedure for Exchangeable P: Method ASA 24-5.2

Preparation Procedure for Exchangeable P

ASA 24-5.2

Phosphorus Soluble in Dilute Hydrochloric Acid and Sulfuric Acid
or
Mehlich I (North Carolina Double Acid) P Determination in Soil

Reagents:

1. Extraction Solution: Add 12 ml of concentrated H_2SO_4 and 73 ml of concentrated HCl to approximately 15 liters of deionized water. Make to 18 liters. This solution is approximately 0.05 N HCl and 0.025 N H_2SO_4 . Smaller quantities may be made in the same ratio.

Procedure:

1. Weigh 12.5 g of soil to a 125-ml Erlenmeyer flask.
2. Add 50.0 ml of extracting solution.
3. Shake on oscillating shaker at 180 oscillations per minute for exactly 5 minutes.
4. Filter through Whatman 42 filter paper into a 50-ml Erlenmeyer flask.
5. Submit the filtrates for analysis by inductively coupled plasma (ICP), atomic absorption, or spectrometric methods.

References:

"Phosphorus Soluble in Dilute Hydrochloric Acid and Sulfuric Acid," Section 24-5.2 in *Methods of Soil Analysis, Part 2, Chemical and Microbiological Properties*, Second Edition, A. L. Page Editor, American Society of Agronomy, Inc. 1982